

Figure 1. Map showing physiographic features and sample localities (1-18) in southwestern Montana and adjacent parts of Idaho. Highland areas are shaded.

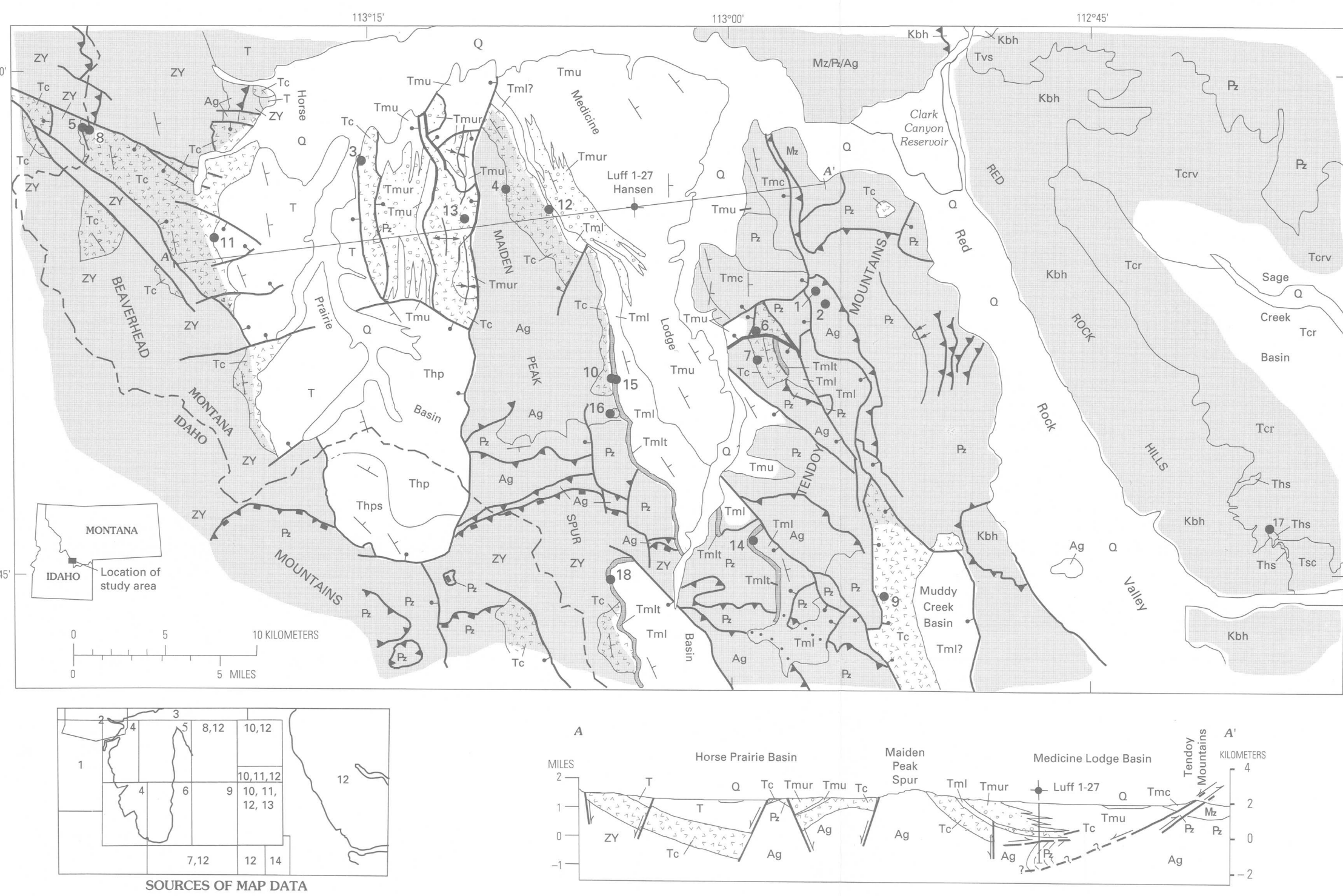


Figure 2. Generalized geologic map of southwestern Montana and adjacent parts of Idaho, showing sample localities 1-18 from the continental divide in the Beaverhead Range to the Red Rock Hills. Highland areas are lightly shaded. Modified from: 1, Stutz, 1972; 2, Hansen, 1983; 3, Corning, 1974; 4, J.W. M'Gonigle unpublished reconnaissance mapping, 1988; 5, J.W. M'Gonigle and M.H. Hatt, Jr., unpublished mapping, 1991-93; 6, M'Gonigle, 1994; 7, Lachina, 1966; 8, M'Gonigle and others, 1991; 9, M'Gonigle, 1993; 10, W.J. Perry, Jr., and J.W. M'Gonigle unpublished mapping 1987-94; 11, DuBois, 1982; 12, Scholten and others, 1955; 13, Dunlap, 1982; 14, Dunlap, 1982; S.U. Janszke, unpublished mapping, 1994.

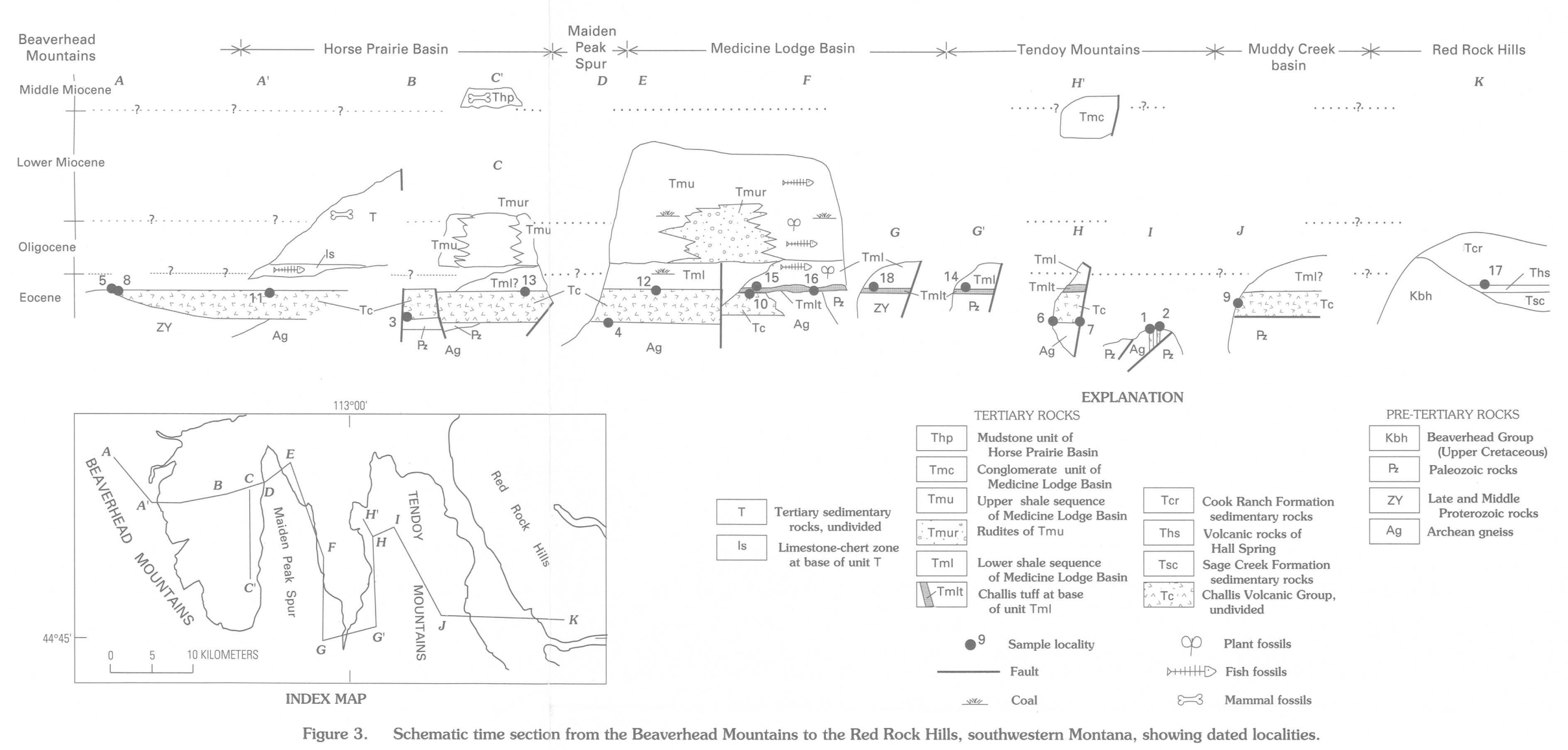


Figure 3. Schematic time section from the Beaverhead Mountains to the Red Rock Hills, southwestern Montana, showing dated localities.

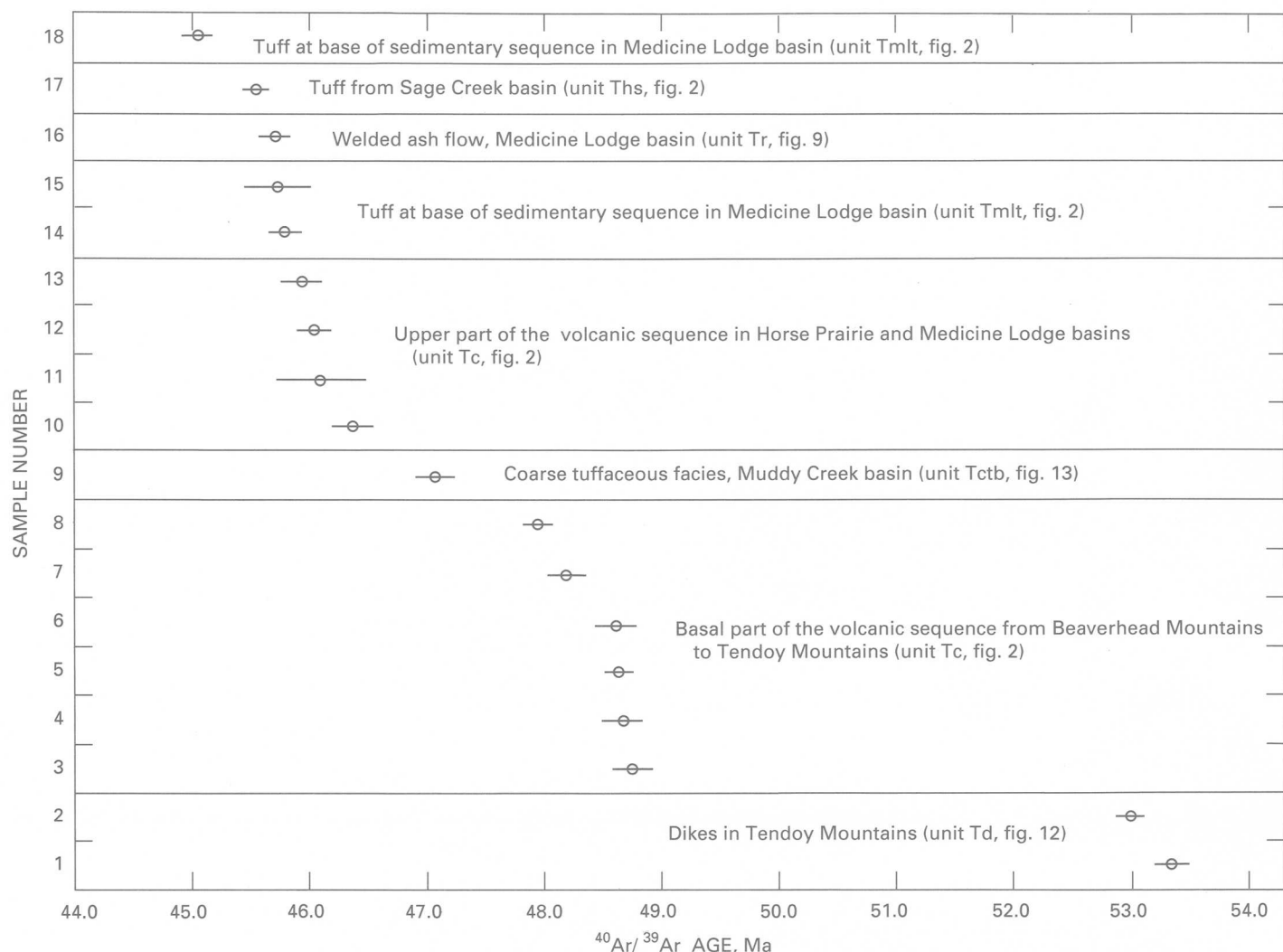


Figure 4. Weighted mean ages of zircon and biotite crystals from volcanic units in southwestern Montana. Sample numbers for each mean age are indicated. Horizontal bars show range of age for each sample.

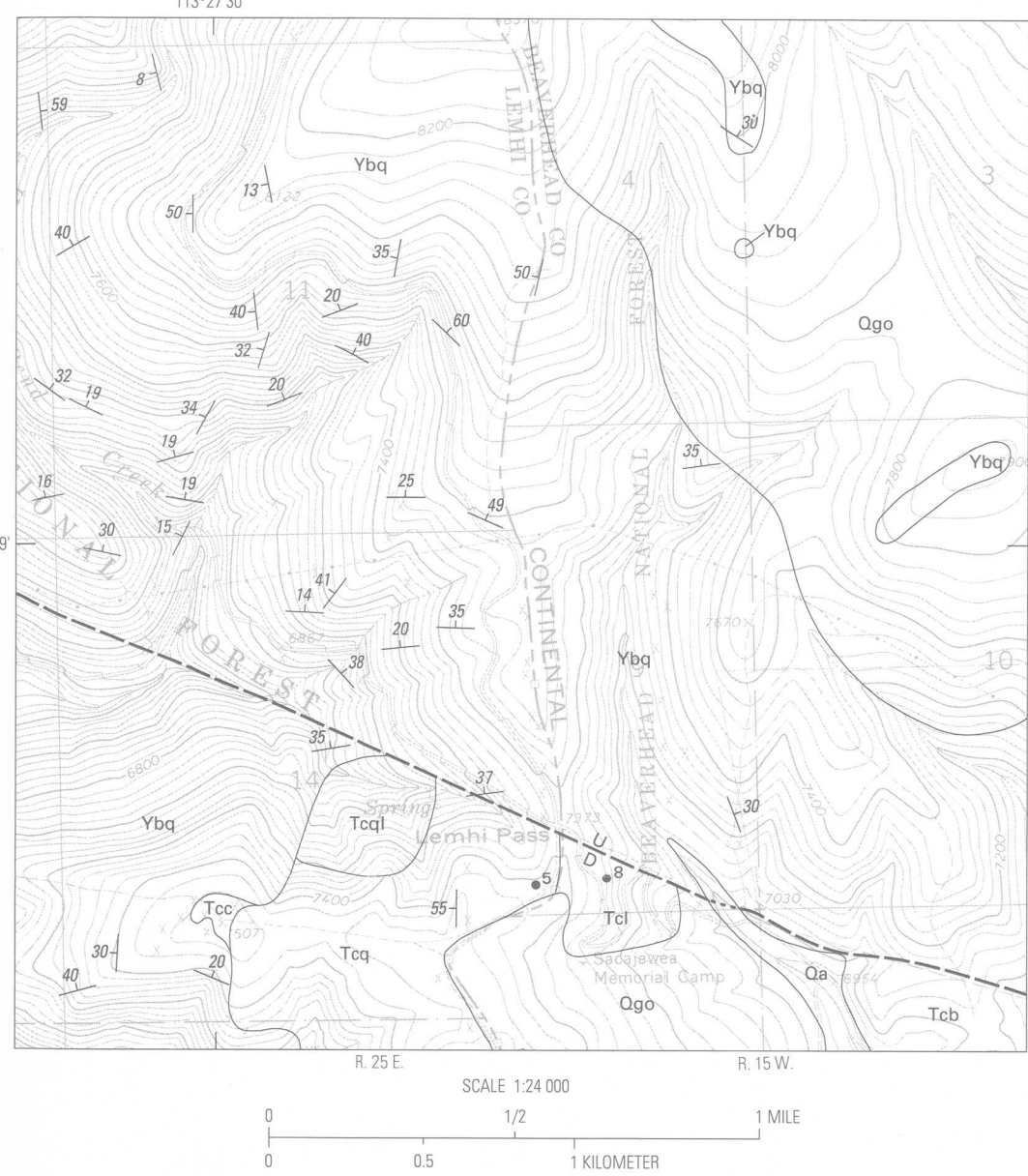


Figure 5. Geologic map of part of the Lemhi Pass 7.5' quadrangle, showing sample localities 5 and 8. Geology modified from Stutz (1972). Base from U.S. Geological Survey, 1965.



Figure 6. Reconnaissance geologic map of part of the Everson Creek 7.5' quadrangle, showing sample locality 11. Unpublished mapping by J.W. M'Gonigle, 1984, 1988. Base from U.S. Geological Survey, 1965.

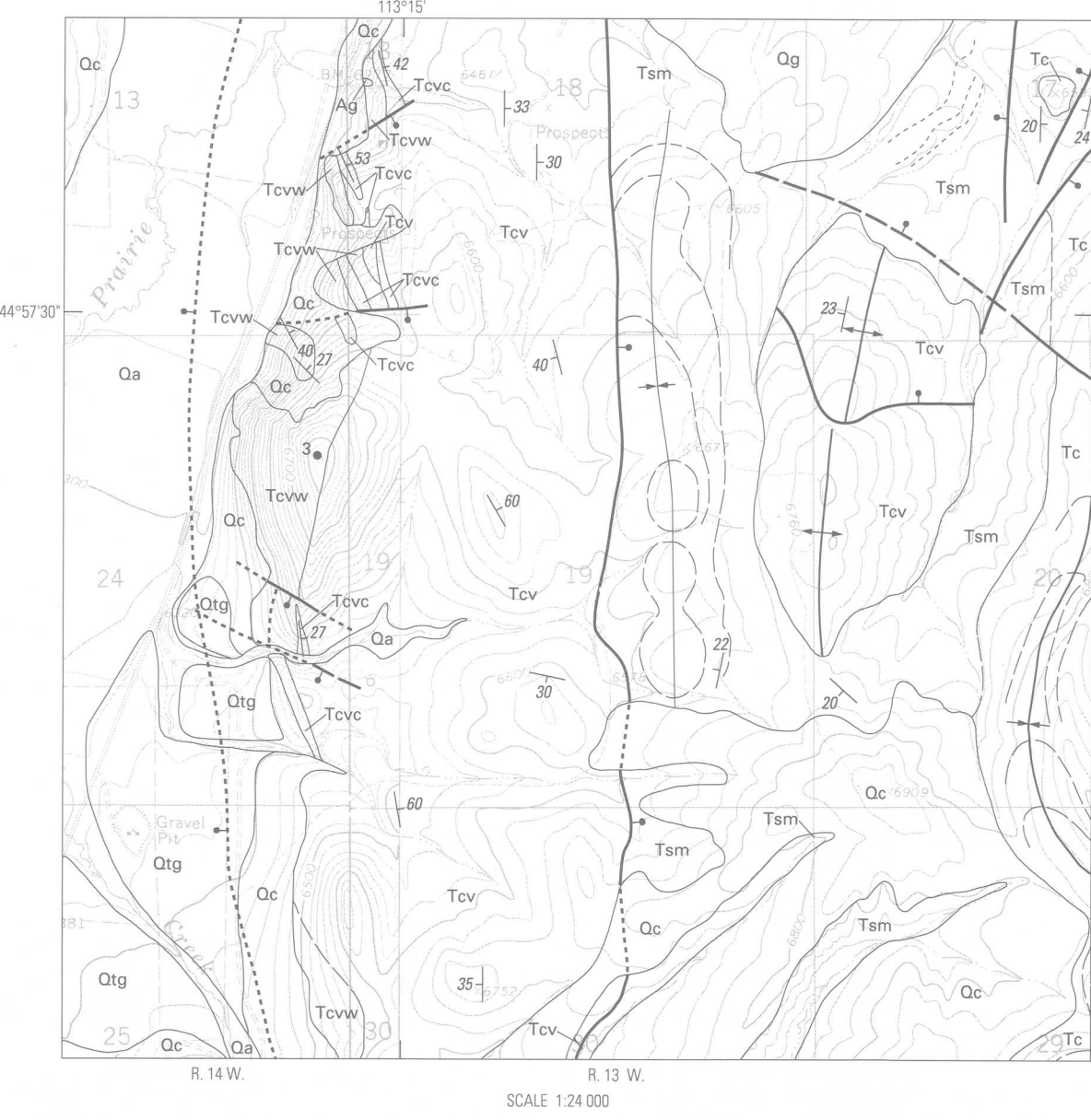


Figure 7. Geologic map of part of the Evergreen Creek and Jeff Davis Peak 7.5' quadrangles, showing sample locality 9. Geology modified from J.W. M'Gonigle and M.H. Hatt, Jr., unpublished mapping 1991-93. Base from U.S. Geological Survey, 1965.

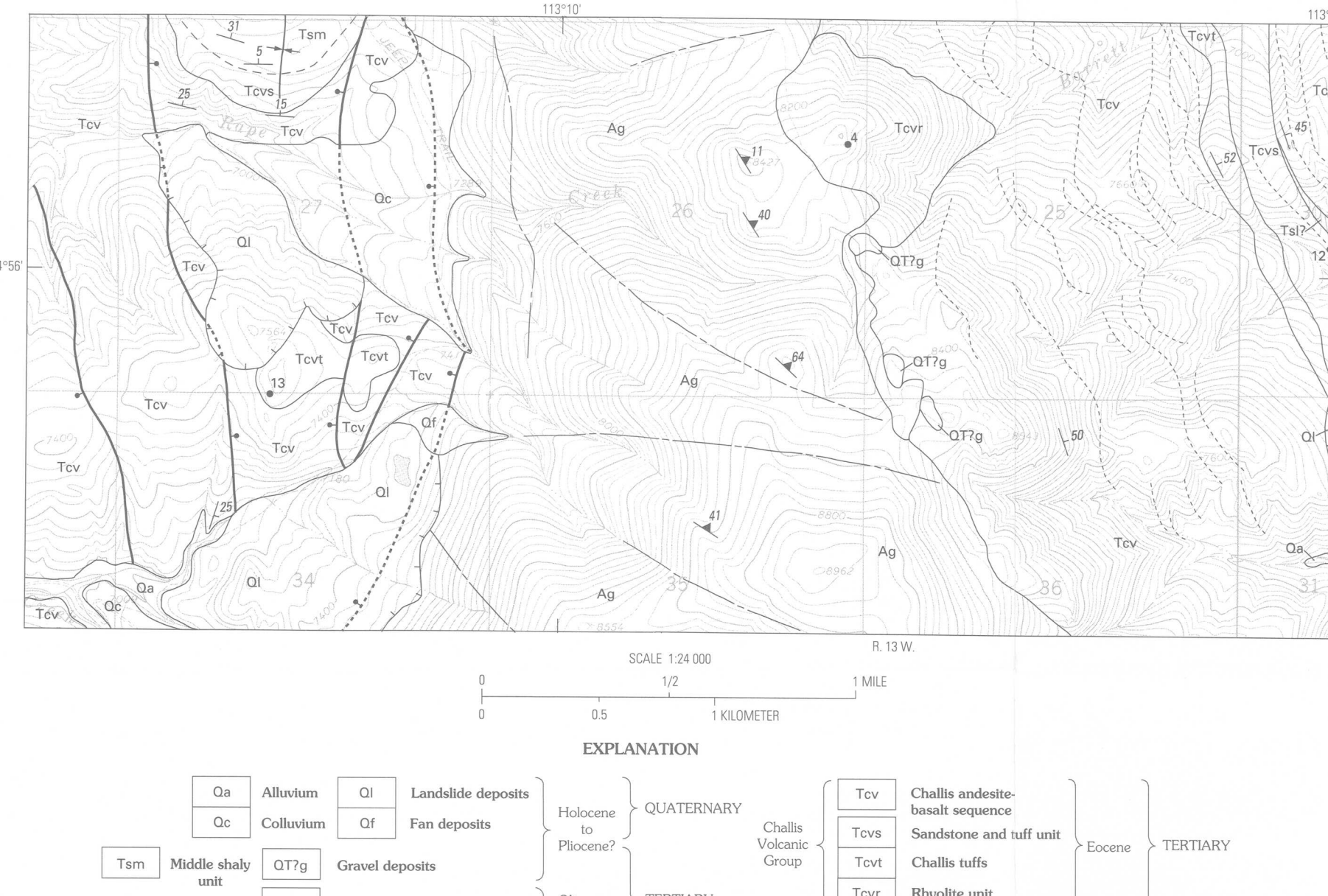


Figure 8. Geologic map of part of the Jeff Davis Peak 7.5' quadrangle, showing sample localities 5, 12, and 13. Geology modified from J.W. M'Gonigle and M.H. Hatt, Jr., unpublished mapping 1991-93. Base from U.S. Geological Survey, 1965.

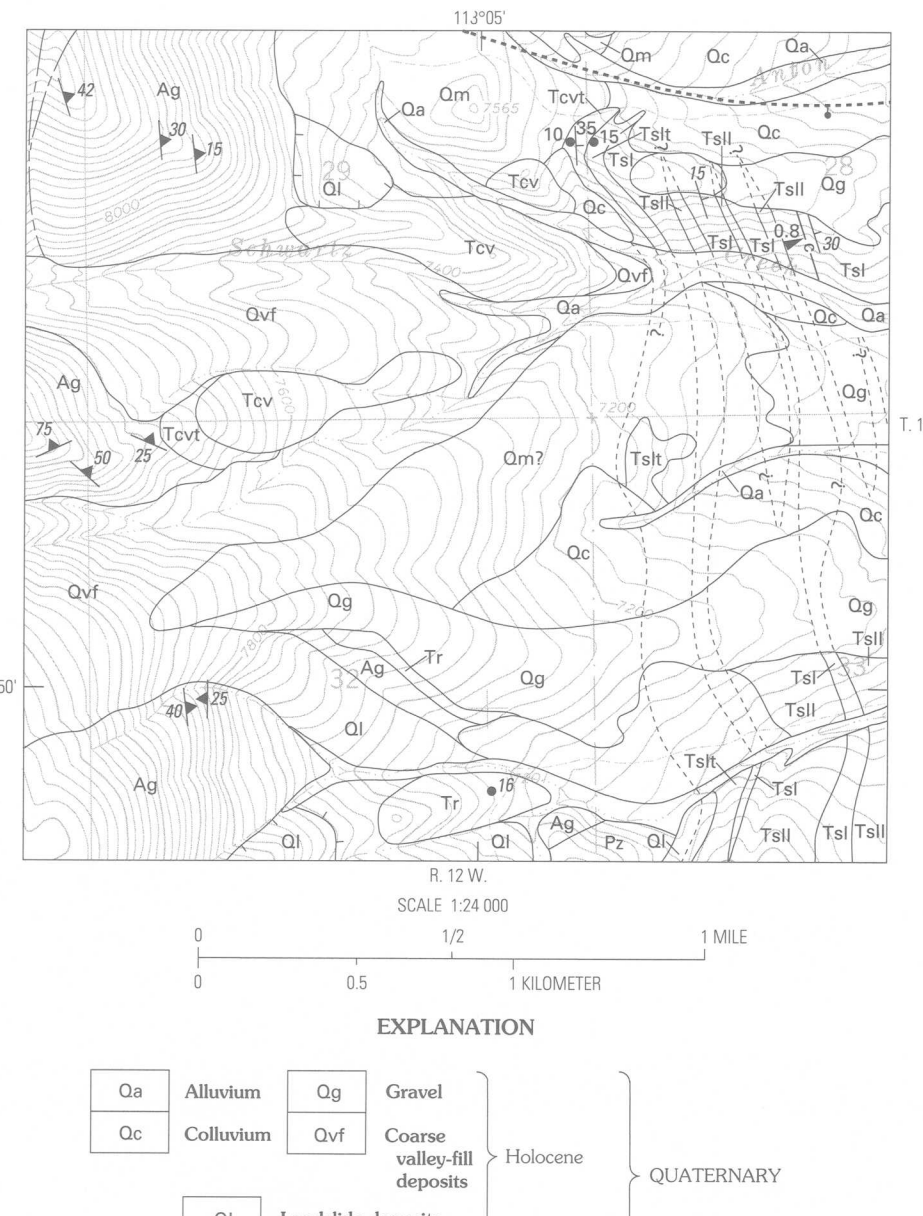


Figure 9. Geologic map of part of the Medicine Lodge Peak 7.5' quadrangle, showing sample localities 10, 15, and 16. Geology modified from M'Gonigle (1993). Base from U.S. Geological Survey, 1965.

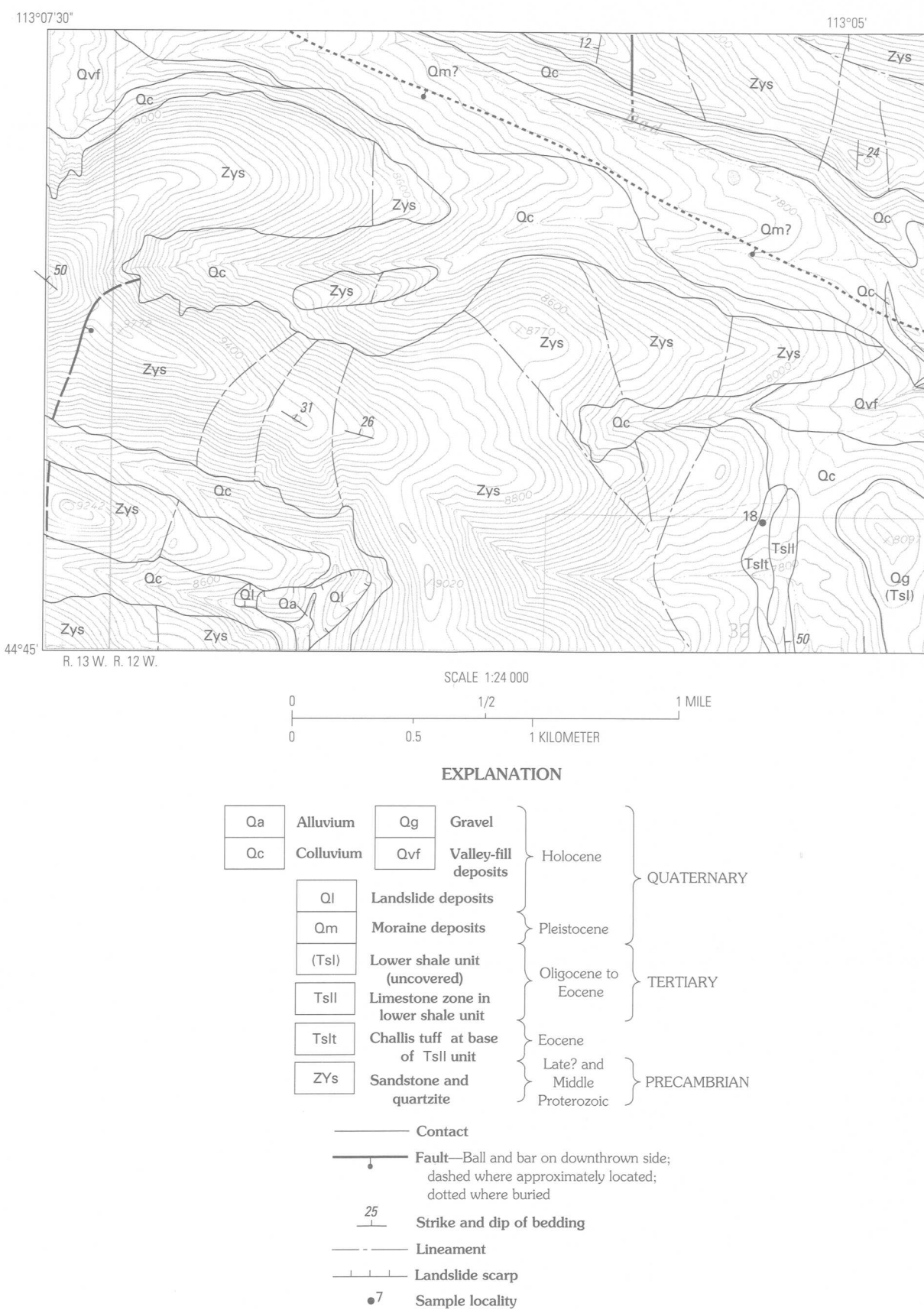


Figure 10. Geologic map of part of the Medicine Lodge Peak 7.5' quadrangle, showing sample locality 18. Geology modified from M'Gonigle (1993). Base from U.S. Geological Survey, 1965.

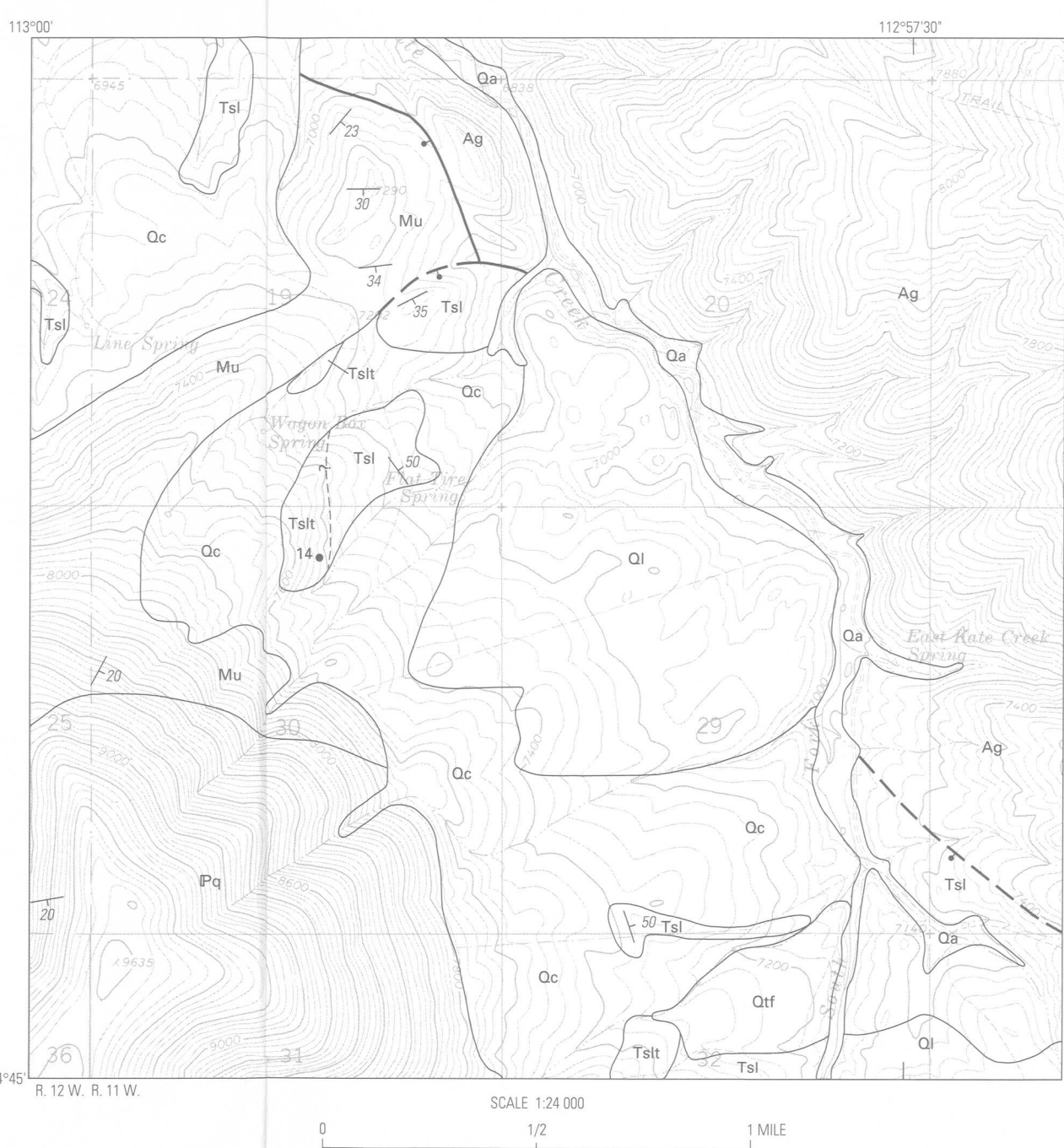


Figure 11. Generalized geologic map of part of the Deer Canyon 7.5' quadrangle, showing sample locality 14. Unpublished mapping by J.W. M'Gonigle, 1982, 1987, 1988. Base from U.S. Geological Survey, 1965.



Figure 12. Generalized geologic map of parts of the Deer Canyon and Garfield Canyon 7.5' quadrangles, showing sample localities 1, 2, 6, and 7. Geology modified from DuBois (1982) and unpublished mapping by W.J. Perry, Jr., and J.W. M'Gonigle, 1987-91. Base from U.S. Geological Survey, 1965.

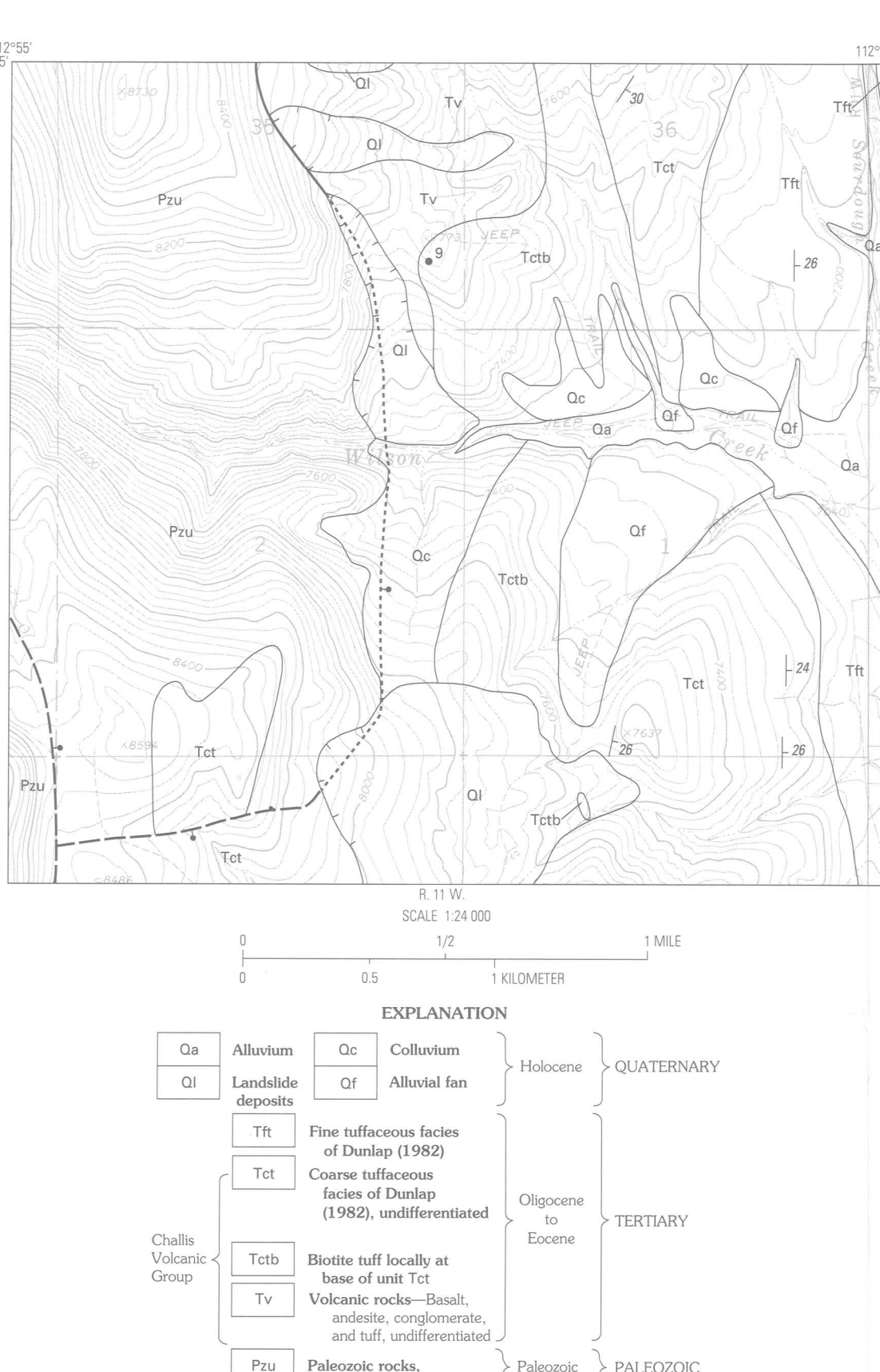


Figure 13. Generalized geologic map of part of the Muddy Creek Basin in the Graphite Mountain 7.5' quadrangle, showing sample locality 9. Geology modified from Dunlap (1982), and from unpublished mapping by S.U. Janszke, 1994. Base from U.S. Geological Survey, 1965.

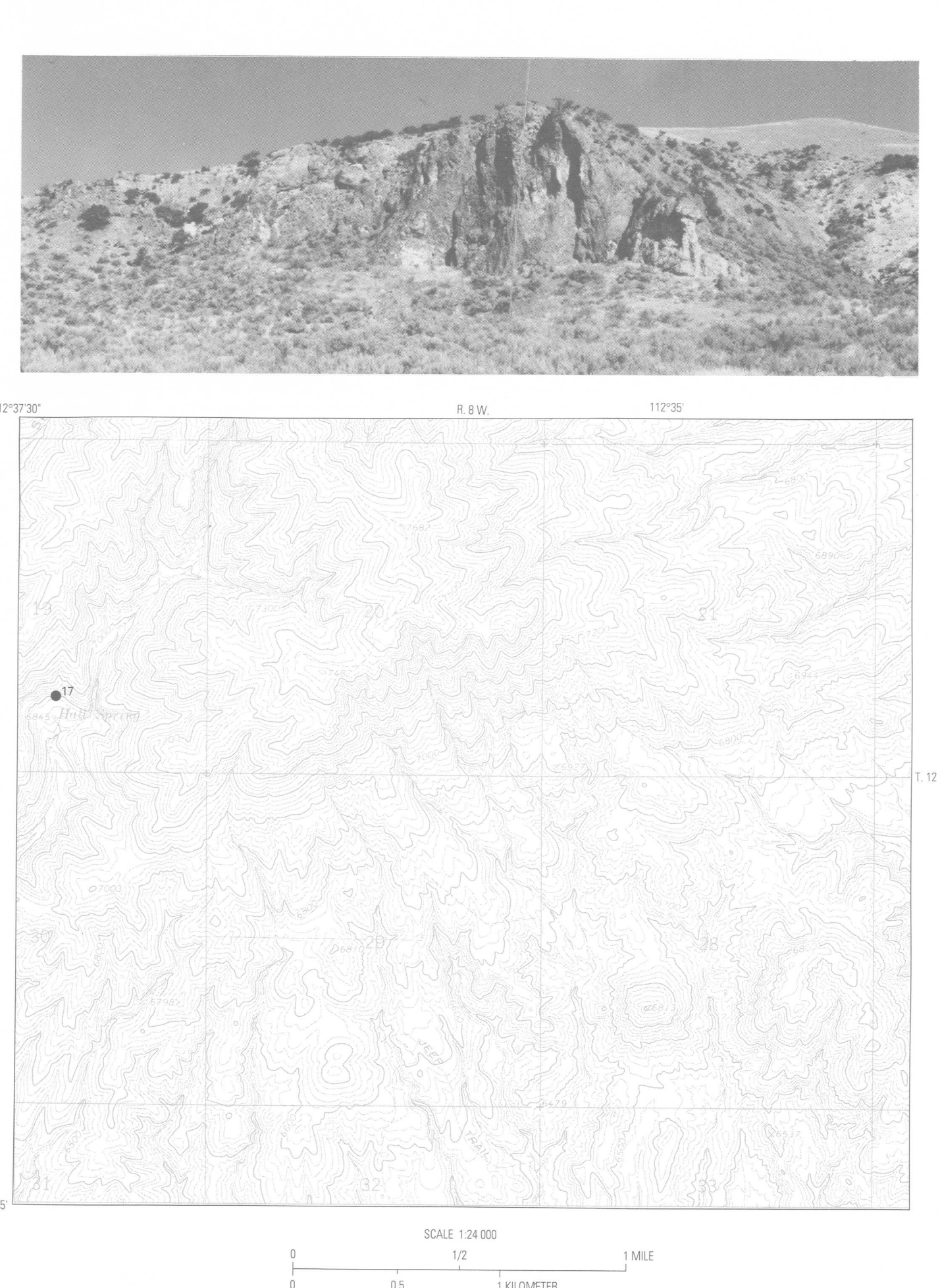


Figure 14. Topographic map showing sample locality 17 in the Rock Island Ranch 7.5' quadrangle and photograph of the sampled volcanic unit. View is to the north. Base from U.S. Geological Survey, 1965.

40AR/39AR AGES OF SOME CHALLIS VOLCANIC GROUP ROCKS AND THE INITIATION OF TERTIARY SEDIMENTARY BASINS IN SOUTHWESTERN MONTANA

By
John W. M'Gonigle and G. Brent Dalrymple
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